



UNCOMMON PRESENTATION OF A COMMON UTERINE TUMOR – FALSE BROAD LIGAMENT LEIOMYOMA

Obstetrics & Gynaecology

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ABSTRACT

Background: Broad ligament fibroids represent a small percentage of fibroids. Often asymptomatic, they present a diagnostic dilemma. Huge fibroids are known to arise from the uterus, although very rarely from extra-uterine sites. Among extra-uterine fibroids, broad ligament fibroids generally achieve enormous size and generally present with pressure symptom like bladder and bowel dysfunction. **Case Report:** We report a case of false broad ligament fibroid. This case is reported for its rarity and the diagnostic difficulties. A 36 year old multiparous women presented with a history of prolonged heavy menstrual flow and pelvic pain. She was evaluated clinically and radiologically and was diagnosed to have large exophytic subserosal fibroid. Intraoperatively bulky uterus of about 12 weeks size was noted with bladder adherent to it. A mass of 14cm*10 cm was noted arising from the left lateral uterus. This mass was extending deep in the pelvis occupying the pouch of douglas posteriorly, and extending laterally into the left broad ligament giving a false impression of broad ligament fibroid. Left hydrosalpinx noted. Hysterectomy was performed. **Conclusion:** False broad ligament leiomyomas pose diagnostic challenges. Imaging techniques like MRI plays a vital role in providing accurate diagnosis. The differential diagnosis of extra-uterine fibroid should be considered in cases of pelvic masses.

KEYWORDS

INTRODUCTION :

Leiomyoma is the most common benign tumor of the uterus and the female genital tract accounting for approximately 20-30% in the females of the reproductive age group¹. Leiomyoma can be intrauterine or extrauterine. Extrauterine fibroids are not as common as uterine fibroids, accounting for less than 3% of all pelvic leiomyomas. Among the extrauterine fibroids, broad ligament fibroids are the most common to occur although its overall incidence is extremely rare (<1%)².

Other extrauterine sites are the round ligament, ovarian ligament and the ovaries¹. Broad ligament fibroids can be primary (true) or secondary (false). True broad ligament fibroid arises from tissues in the broad ligament itself, uterine vessels and ureter lying medial to the tumour. False broad ligament fibroid arises from the uterus but grows laterally between the two layers of the broad ligament and retains its attachment to the uterus. Uterine vessels and ureter lie lateral to the false broad ligament fibroid. It often coexists with the fibroids of the uterus. Clinically, broad ligament fibroids may manifest as extrauterine pelvic masses that compress the urethra, bladder neck, or ureter producing symptoms of varying degrees of urinary outflow obstruction. Very rarely when the fibroid develops under the ureter, ureter is lifted up onto the upper surface of the tumor. Both the ureter and the uterine artery wherever in relation to the fibroid, will always be extracapsular³. Understanding the importance of this fact helps in reducing the potential complications during surgery⁴.

Due to its rarity it's very difficult to differentiate broad ligament leiomyomas from other differential diagnosis like solid ovarian mass tumor, clinically⁵. This is one of such cases where accurate origin of pathology was got confused clinically and ultrasonographically. Here we are reporting a case of huge false broad ligament leiomyoma with diagnostic difficulties in differentiating it from an adnexal mass.

Case Report :

A 36 year old multiparous women, P3L3, three previous caesarean sections, presented with a history of prolonged and excessive bleeding per vaginum during her cyclical menses for past 1 year and a 3 months history of dull aching non-radiating pelvic pain without any pressure symptoms. On examination, she is moderately built and nourished. Her pulse rate was 81 bpm, blood pressure 110/80 mm of Hg. Hemoglobin was 6.8gm/dL. Three packed cell transfusions were done to correct the anaemia prior to surgery.

Examination Findings:

Per Abdomen:

Suprapubic transverse scar and subumbilical vertical scar noted.

Non tender. No organomegaly.

Per Speculum :

Cervix was hypertrophied. Multiple Nabothian cysts noted.

Bimanual Examination :

Her pelvic examination revealed a bulky uterus of about 12-14 weeks size, anteverted with restricted mobility, with posterior and left fornical fullness.

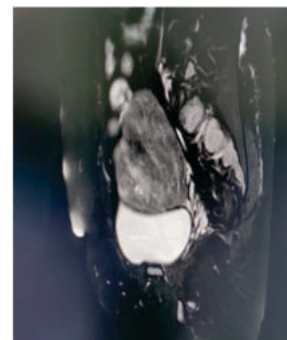
Ultrasonography showed bulky uterus with hyperechoic mass in left adnexa measuring 11cm*6cm with left hydrosalpinx. MRI revealed large well defined T2 hypointense lesion in left lateral part of uterus extending exophytically measuring 9.3*7.5*7.5cm (exophytic subserosal fibroid) causing mild indentation over urinary bladder and small cystic (complex cystic) lesion in left adnexa likely ovarian in origin.

Mri Pelvis Showing The Tumor



Coronal view

After anaemia correction and thorough workup she was scheduled for hysterectomy.



Sagittal view

Intraoperative Findings :

Bulky uterus of about 12 weeks size was noted with bladder adherent to it. A mass of 14cm*10 cm was noted arising from the left lateral uterus. This mass was extending deep in the pelvis occupying the pouch of douglas posteriorly, and extending laterally into the left broad ligament giving a false impression of broad ligament fibroid. Left hydrosalpinx noted. Careful dissection was done to prevent the uretric injury. Total abdominal hysterectomy with bilateral salpingoo

pherectomy was performed and the specimen was sent for histopathological examination. Post operative period was uneventful.



DISCUSSION:

Uterine fibroid typically does not present a clinical or sonographic diagnostic challenge. Unusual growth patterns or unusual locations make their identification more challenging both clinically and radiologically².

Broad ligament leiomyoma can originate from the uterus and invade the broad ligament (false) or it can originate from broad ligament itself (hormone sensitive smooth muscle elements of broad ligament⁶). False broad ligament leiomyomas arise from the lateral wall of uterine body cervix and protrude in between the layers of the broad ligament. The uterus, thus become an integral part of the tumor. In general broad ligament fibroids are single with regular borders. In our case it is large bossellated mass⁵.

These benign tumors are asymptomatic. However if they reach the significant size, compress the surrounding pelvic structures and manifest clinically with various signs and symptoms such as pressure symptoms, pelvic pain, bladder and bowel dysfunction. Intrauterine fibroid on the other hand in addition often presents with menstrual abnormalities and dysmenorrhoeas. The case presented here has dull aching pelvic pain owing to the large size of the fibroid extending deep into the pouch of douglas and broad ligament and menstrual abnormalities. The most useful modalities for detecting and differentiating uterine and extrauterine leiomyomas are ultrasound, CT and Magnetic Resonance Imaging. MRI with its multiplanar imaging capabilities, is extremely useful for differentiating uterine and extrauterine fibroids (as in our case) as well as from masses of ovarian or tubal origin and broad ligament cysts.

The differential diagnosis includes

- (1) True broad ligament fibroids
- (2) Ovarian neoplasms like ovarian fibroma or fibrothecoma, Brenner tumor
- (3) Broad ligament cyst⁵

While performing surgery, it is preferable to start dissecting the tumor from the healthy side of the uterus, as it help in controlling the hemorrhage and secondly, the uterus itself provides the tumor its firmest attachment which is elsewhere surrounded by cellular tissue and peritoneum. Controlling the uterine vessels on the side of the tumor is the most challenging part and it is often impossible to secure them until the tumor is removed from the field³.

CONCLUSION:

False broad ligament leiomyomas pose diagnostic challenges. Extra-uterine fibroids occur infrequently, although they are histologically benign, may mimic malignant tumors at imaging, and may present a diagnostic challenge. The clinical symptoms and imaging features depend on the location of the lesion and on its growth pattern. So, the differential diagnosis of extra-uterine fibroid should be considered in cases of pelvic masses with normal uterus and ovaries⁶. Imaging techniques like MRI plays a vital role in providing accurate diagnosis. One should be extremely cautious while performing surgery to avoid uretric injuries and damage to surrounding structures.

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